

REMARKS

Applicants have amended claims 1 and 10 to include a phrase "wherein the soft tissue components associated with the bone surfaces have been removed." Support for this amendment can be found throughout the specification, particularly, for example, on page 2, lines 24-26, and page 13, lines 5-7.

Applicants have further amended claim 10 to refer to cells isolated from the "mineralized matrix of the bone." Support for this amendment can be found throughout the specification and particularly, for example, on page 19, line 5.

Therefore, all the claim the amendments are supported by the specification and accordingly, they do not introduce new matter. The entry of the amendments is respectfully requested.

Turning now to the specific rejections.

The examiner maintained the rejection of claims 1-4 and 7-8 under 35 U.S.C. §102(b) as being anticipated by Caplan et al. (U.S. Patent No. 5,486,359).

In response to the examiner's comments in the Office action dated August 9, 2004 (paragraph bridging pp. 3 and 4), applicants have amended claims 1 and 10 to include the limitation "wherein the soft tissue components associated with the bone surfaces have been removed." Caplan teaches mesenchymal stem cells isolated from **bone marrow**, which is not **bone**. Applicants respectfully submit that the present claims now explicitly exclude bone marrow as the source of the stem cells.

Therefore, applicants respectfully submit that Caplan does not anticipate the present claims because it does not teach mesenchymal stem cells isolated from bone, and accordingly, the rejection of claims 1-4 and 7-8 over Caplan should be withdrawn.

The examiner also maintained rejection of claims 1, 5, and 9 under 35 U.S.C. §102(b) as being anticipated by Gerson et al. (U.S. Patent No. 5,591,625).

In response to the examiner's comments in the Office action dated August 9, 2004 (paragraph bridging pp. 4 and 5), applicants have amended claims to add a recitation to the cells that are isolated from bone "wherein the soft tissue components associated with the bone surfaces have been removed." Gerson does not teach mesenchymal stem cells that are isolated from bone. Accordingly, applicants submit that the rejection of claims 1, 5, and 9 over Gerson should be withdrawn.

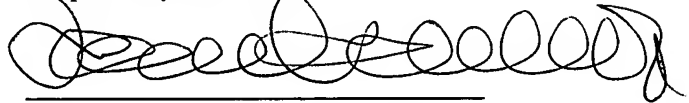
The examiner further maintained the rejection of claim 6 under 35 U.S.C. §103(a) as being obvious over Gerson in light of Breibart et al. (U.S. Patent No. 6,077,987).

In response to the examiner's comments in the Office action dated August 9, 2004 (p. 6, last paragraph), applicants have amended the claims to include the limitation that the cells be isolated from the "mineralized matrix of bone". Gerson does not teach isolation of cells from the mineralized matrix of bone. Breibart does not overcome this deficiency because also Breibart does not teach mesenchymal stem cell population originating from mineralized matrix of bone. Therefore, in light of the amended claims applicants respectfully submit that the rejection under 35 U.S.C. §103(a) over Gerson in light of Breibart be withdrawn.

Applicants respectfully petition the examiner to enter the amendments because, at minimum, they will reduce the issues on appeal.

In view of the foregoing, applicants respectfully submit that all claims are now in condition for allowance. In the event of questions, the Examiner is kindly asked to contact the undersigned. Early and favorable action is earnestly solicited.

Respectfully submitted,



Date: November 2, 2004

David S. Resnick (Reg. No.: 34,235)
Leena H. Karttunen (37 CFR 10.9(b))
NIXON PEABODY LLP
100 Summer Street
Boston, MA 02110
(617) 345-6057/1367